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AMATEUR RADIO DIGITAL COMMUNICATIONS

January/February 2025

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Quick Announcement: New Newsletter Cadence

Welcome to 2025! We've got lots going on here at ARDC this year, and we want to keep you informed while we stay focused on the important work ahead. In service of achieving both of those goals, we are shifting our newsletter to a once-every-two-months schedule. This way, we can continue sharing news and updates while dedicating time to initiatives that are important to our community. Thank you all for staying connected, and we appreciate your support!

Upcoming Community Deadlines and Notices

- Next Community Meeting: Our next Community Meeting will be on Saturday, March 15, 2025 at 10a PDT / 1p EDT / 5p UTC. If you're interested in attending, keep an eye out for the invite form, and stay tuned to our social media pages and <a href="marcher:arch
- Next Grant Application Deadline: The next deadline for submitting a grant
 application is April 1, 2025. Applications received after this date will be reviewed in
 July 2025, so get your applications in now.

Grantee Updates

Budapest University of Technology and Economics (BME)



Grantees at the <u>Budapest University of Technology and Economics (BME)</u> recently reported that the MRC-100, a small satellite built by its students and launched in June 2023, re-entered the Earth's atmosphere on January 4,

2025, and subsequently perished as expected. During its 18-month mission, the MRC-100 collected 882,541 telemetry data packets and conducted research on electromagnetic pollution across a broad range of frequencies. It also demonstrated stable data transmission

rates in the microwave S-band, supporting experiments from multiple universities. Despite challenges, such as particle radiation and solar cell degradation, the mission provided students on the satellite development team with valuable experiences that can be applied to their future projects. The development of MRC-100's successor, HUNITY (NMHH-1), is currently underway, with a launch date set for late 2025. You can read more about the MRC-100 satellite project here: https://www.bme.hu/en/news/250113/bme-vik-space-research-mrc-100-satellite-mission.

Digital Library of Amateur Radio and Communications (DLARC)



The <u>Digital Library of Amateur Radio and Communications</u> (<u>DLARC</u>), curated by Kay Savetz K6KJN, is an online, openaccess resource that preserves amateur radio-related media and communications. Kay published a guest blog post last month emphasizing the importance of preserving documents and records in our digital age. To learn more about DLARC and their dedication to digitizing amateur radio history, you can find the related blog post here: https://blog.archive.org/2025/01/14/vanishing-culture-digital-library-of-amateur-radio-and-communications/.

ARRL Club Grant Program



The <u>ARRL Club Grant Program</u> – launched in 2022 with <u>initial funding from ARDC</u> – provides grants to amateur radio clubs of all sizes to support initiatives such as

STEM/STEAM education, club and remote station improvements, and programs like Get On The Air (GOTA) and ham skills development. A January 24, 2025 ARRL news article reported that 37 clubs received a total of \$500,502 in funding. Projects include antenna upgrades for Florida's <u>SARNet</u>, enhancements to telemetry systems led by the <u>Illinois Space Society</u>, and various youth outreach programs. To learn more about the 2024 grant impacts, visit the ARRL News website here: https://www.arrl.org/news/arrl-club-grant-program-awards-a-half-million-dollars-to-grow-ham-radio.

Hot Springs Amateur Radio Club (K0HS)



Image credit: Hot Springs Amateur Radio Club (K0HS)

Earlier this month, the Hot Springs Amateur Radio Club (KOHS), as part of their ARDC-funded Youth Incentive Program, hosted its first beginner ham radio class. 28 students were in attendance and ready to learn more about amateur radio and emergency communications. Guest speaker Melissa Fleming of the Fall River County 911 Dispatch gave a presentation on the important role that ham radio plays in emergency response, and later spent time answering questions from the group and engaging with the attendees. If you're in the Southwest South Dakota area and

are interested in attending one of their classes, below are some details for their next session:

- Date: Tuesday, March 11, 2025
- Time: 5pm MDT
- Location: South Annex Building, 709 Jensen Hwy. (former ambulance building), Hot Springs, SD USA
- Who's Invited: Open to all, especially youth interested in real-world radio applications and hands-on learning

You can learn more about K0HS's successful first beginner ham radio class, along with more information about future sessions, by visiting this link: https://k0hs.net/success-our-first-beginners-ham-radio-class-was-a-hit/.

What ARDC Has Been Up To

Grants Advisory Committee (GAC) Chair Bill Thomas WT0DX on W1DED Worldwide Ham Radio



On January 15, 2025, ARDC's <u>Grants Advisory Committee</u> (<u>GAC</u>) Chair Bill Thomas WT0DX was a guest on <u>W1DED</u> Worldwide Ham Radio, where he spoke of his background, ARDC, and his work with the <u>Deep Space Exploration</u> <u>Society (DSES)</u>. Here's the link if you'd like to catch the episode: https://www.youtube.com/watch? v=dvvoKiQPF3M.

Staff Members John Burwell KI5QKX, Rosy Schechter KJ7RYV, and Rebecca Key KO4KVG on Ham Radio Workbench



On HRWB episode 229, February 11, 2025, 44Net Program Manager John Burwell KI5QKX, Executive Director Rosy Schechter KJ7RYV, and Communications Manager Rebecca Key KO4KVG were guests on Ham Radio Workbench (HRWB), where they spoke to George Zafiropoulos KJ6VU,

Thomas Witherspoon K4SWL, and Mark Smith N6MTS about ARDC and the 44Net. Here's the link to the podcast if you'd like to give it a listen:

https://www.hamradioworkbench.com/podcast/hrwb-229-all-about-44-net-and-the-ardc.

ARDC Team Spotlight

Kristin Paget NC0DD



Kristin is beginning her third year on the Grants Advisory Committee (GAC), where she notes "It's an amazing bunch of people and great fun to work with, even when we're swamped with proposals!" On the note of proposals, Kristin enjoys the "off-the-wall R&D projects" that come through for review, stating "I love advocating for projects that could really push the boundaries of what radio can do, whether that's new modulations, new antenna designs, or hyper-pragmatic applications of digital technology. ARDC is a great vector for the wacky ideas that really challenge what we think we know about technology." Outside of ARDC, Kristin enjoys building a wide variety of electronics, ranging

from hardware security tools at work to IoT widgets to an infrared blaster (just ask!). If you'd like to learn more about Kristin, be sure to check out her <u>interview about IoT Security from the 2017 Hackaday Superconference</u>, as well as an <u>amazing talk from DEF CON 18 about cell phone spying</u>.

Kevin McQuiggin VE7ZD/KN7Q

Kevin is in his second year with the GAC, a role he pursued after speaking with ARDC staff at GRCon 2023. During his tenure on the GAC, he highlights two standout proposals: one



from a research group developing a digital communications protocol for space-based communication and another focused on portable wireless telecommunication protocol for remote villages in developing nations. "We receive so many interesting proposals that have the potential to push innovation in radio and improve infrastructure for better emergency response that it is hard to choose just one," he says. Beyond his volunteer work with ARDC, Kevin teaches courses in amateur radio, computing science, ethics, and criminal justice. His ham radio interests include digital communications, meteor scatter, EME, and other VHF+ activities. He also enjoys writing his own software for DSP

applications. Outside of radio, Kevin's interests range from playing the bagpipes (making appearances in the world championships in Scotland) to flying, chess, and beekeeping. To learn more about Kevin, including his radio collection and M.A. thesis, you can visit his personal website: http://highgate.comm.sfu.ca/.

Dennis Derickson AC0P



This year marks Dennis' third year on the GAC. A ham since high school, the hobby played a key role in shaping his career in electrical engineering. He finds the most satisfying grants to be those that connect instructors and local radio clubs with high school or junior high students, introducing them to ham radio and its many learning opportunities. Outside of ARDC, Dennis is an Electrical Engineering Professor at California Polytechnic. His hands-on teaching approach has led students to build numerous amateur radio-related projects in their laboratories. He also offers an amateur radio licensing bonus credit in all his courses. When he's not on campus, Dennis enjoys racing sailboats with colleagues, or planting trees and watching them grow into 'giants'. To learn more about Dennis, you can check out his faculty profile here:

https://ee.calpoly.edu/faculty/ddericks.

Come See us at PEAK Grantmaking and Dayton Hamvention

ARDC will be out and about this spring: you will be able to find our team at the following event(s):



- PEAK Grantmaking March 24 26, 2025, New Orleans, LA
- <u>Dayton Hamvention</u> May 16 18, 2025, Xenia OH

Contact Us!

We always want to hear from you:

Visit our website: ardc.net

General info: contact@ardc.net

Information and questions about grants: giving@ardc.net

44Net issues: <u>contact@ardc.net</u>
Groups.io: <u>ardc.groups.io</u>
Twitter / X: <u>@ARDC 73</u>

Facebook: <u>Amateur Radio Digital Communications</u>
LinkedIn: <u>Amateur Radio Digital Communications</u>

ARDC's Mission

The mission of Amateur Radio Digital Communications (ARDC) is to support, promote, and enhance digital communication and broader communication science and technology, to promote amateur radio, scientific research, experimentation, education, development, open access, and innovation in information and communication technology.

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